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The Prevalence and Predictors of Burnout Among Nurses: A Cross-Sectional Study

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Abstract: Employee burnout is a risk in this setting. investigated due to the lack of studies and research. This study evaluates Burnout prevalence, its association, and impacts among the nursing staff who are working in AL-Diwaniyah hospitals. The concept of burnout among healthcare workers is not new, but recently, there has been a lot of national focus on nurses' mental health and how it affects patient safety. The purpose of this study was to examine The Prevalence and Predictors of Burnout Among Nurse at Al-Diwaniyah Hospital using a cross-sectional design. A purposive (non-probability) sample of 25 nurses was employed for the study. The study has been carried out in Al-Diwaniyah Hospital \ Iraq, conducted throughout August 2nd, 2024, to February 2nd, 2025. There were two sections to the questionnaire: Part I is a self-administered survey on the demographics of the sample; Part II is a self-administered questionnaire sheet about burnout based on the Cristina Maslach Burnout Inventory. A study found that there is a moderate level of burnout among medical personnel, where a burnout rate was 56%. ALSO shows that there is a nonsignificant association among the nurses' burnout and their gender according to (Kruskal-Wallis) at p-value (.341), and that there is a nonsignificant association among the nurses' burnout and their workplace, age, while there is a significant to marital status according to (Mann-Whitney U). According to this study, the participants in the study were moderate level of burnout among nurses 'staff (56%) which is mostly related Some factors included in our survey such as Fear of contracting communicable diseases, Increased effort at work and as a result Feeling stressed and tired at the end of the day, Insufficient monthly income for some medical personal. Some of the factors that have been included, such as increased working hours, exposure to professional pressures that exceed their ability to bear, being in constant confrontation with patients' problems, or the lack of updated guidelines, and high rates of infection among health care providers, have also contributed.

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1. Introduction

Burnout is a syndrome characterized by mental and physical tiredness from caregiving activities. The term was first used in the early 1970s to characterize the effects of high levels of stress on "helping professions" such as nursing. High levels of depersonalization, emotional exhaustion, and inadequate personal accomplishment all contribute to burnout [1]. According to the most current International Classification of

Diseases (ICD-11) revision, burnout is categorized as an "occupational phenomenon" by the WHO [2].

Burnout is a long-term reaction to continuing interpersonal and emotional pressures at work. The three qualities of professional inefficacy, cynicism, and fatigue explain it. Burnout is very common among employees, particularly doctors and nurses. Both exposure to workplace violence and the intention to leave a job are positively correlated with burnout. Therefore, in order to address occupational burnout and lessen its detrimental effects on employees, patients, and organizations, prevention and management techniques are required [3].

Nurses frequently experience burnout as a result of occupational stress. A number of characteristics have been associated with burnout, including age, years of service, nursing hierarchy, staffing levels, demanding or tough patients, younger age, male gender, and insufficient clinical supervision. Other contributing factors include a high workload, emotional stress, low compensation and underappreciated work, poor leadership, death and dying, conflicts with coworkers, taking on responsibility, a lack of social support, conflicts with doctors and other nurses, the existence of stressors in one's personal life, feeling that one's job is in jeopardy, and improved nursing grades [4].

The prevalence of burnout among nurses has been rising in recent years, making them a high-risk group for the condition. Between 15 and 60 percent of nurses worldwide suffer from burnout [5]. According to estimates, 54% of nurses in the United States and other southern American nations experience burnout. Burnout among nurses is 10–42% common in European nations [6]. In addition, burnout accounted for 15% of workplace absenteeism in the Netherlands, with an annual cost of 1.7 billion euros. The prevalence of burnout among nurses was found to be high in Asian nations, ranging from 73 to 77 percent [7].

A 2016 study of Iraqi health care workers revealed a significant prevalence of burnout linked to violence, but they did not examine the connection between burnout syndrome and these conditions [8,9]. The 13th European Conference on Research Methodology for Business and Management Studies (ECRM 2014) recommended that both quantitative and qualitative methods be used to assess burnout and stress. A hidden facet of the phenomenon is revealed by triangulation [10,11].

Despite the high rate of burnout among nurses in Iraq, little attention is paid to improving the problem. The level of burnout in the research setting is little understood, despite the high patient load in comparison to the number of nurses. Additionally, the nurses' perceptions of burnout, their experiences, and their suggested preventive actions were investigated. All of these parameters and their connection to burnout were evaluated in this study. Thus, the purpose of this study was to determine the prevalence of burnout among CCU nurses at Al-Diwaniyah Teaching Hospital in Al-Diwaniyah City.

2. Materials and Methods

To collect information on burnout, its prevalence, correlations, and impacts among nurses working at Al-Diwaniyah Teaching Hospital, this study used a cross-sectional study design. The study was carried out at the Al-Diwaniyah Teaching Hospital in Al-Diwaniyah City, Iraq, between August 2, 2024, and February 2, 2025. Purposive sampling (non-probability) is used to gather accurate and representative data. The coronary care unit of Al-Diwaniyah Teaching Hospital employs a total of 27 nurses. According to Yamane, the 95% confidence level and sample size for $p = 0.5$ should be:

$$n = N / (1 + N (e)^2)$$

$$n = 27 / (1 + 27 (0.05)^2) = 25 \quad [12]$$

Data was gathered after the nursing staff completed the questionnaire with the institution's approval. Self-reporting took fifteen to twenty minutes. Every nurse taking part in the study gives their agreement when the researcher presents the study form.

In order to meet the study's objectives, the researchers used the questionnaire as needed by the study design in order to determine the prevalence of burnout among healthcare professionals and pinpoint the primary factors contributing to its spread. There are two sections to the questionnaire: Section I: Self-administered survey pertaining to the sample's demographic characteristics: Part II: A self-administered questionnaire sheet related to burnout as measured by the Cristina Maslach framework. The Burnout Assessment was connected to a self-managed questionnaire that had a set of questions based on the Cristina Maslach scale. Each response to the 21 items on the questionnaire is provided on a three-point Likert scale. This instrument has been widely utilized in several investigations conducted across the globe [13].

After receiving the Al-Diwaniyah Health Department's Director General's authority to carry out the study on February 8, 2024. The researcher acquired each medical professional's verbal informed consent. The study's goal was described to the participants before their involvement, and they were informed that their involvement was entirely voluntary and that they might leave the study at any moment. He also promised them that the data would be kept private and that they would be kept safe both during and after.

The data was examined using SPSS version 26, a statistical analysis tool. Score mean, standard deviation, percentages, and frequencies. For data differences, Mann-Whitney U and Kruskal-Wallis H were employed.

3. Results

Table 1. Demographic Data of the Study Participants (n=25).

Demographic Data	Rating	Frequency	Percent (%)
Age	21 – 30	20	80%
	31 – 40	4	16%
	41 – 50	1	4%
	More than 51 years	0	0
	Total	25	100%
Gender	Male	5	20%
	Female	20	80%
	Total	25	100%
Marital Status	Single	11	44%
	Married	14	56%
	Total	25	100%
Education level	Diploma	5	20%
	Bachelor	17	68%
	Postgraduate	3	12%
	Total	25	100%
Workplace	General hospital	23	92%
	Others	2	8%
	Total	25	100%
Income	Enough	2	8%
	Not enough	15	60%
	Somewhat enough	8	32%
	Total	25	100%

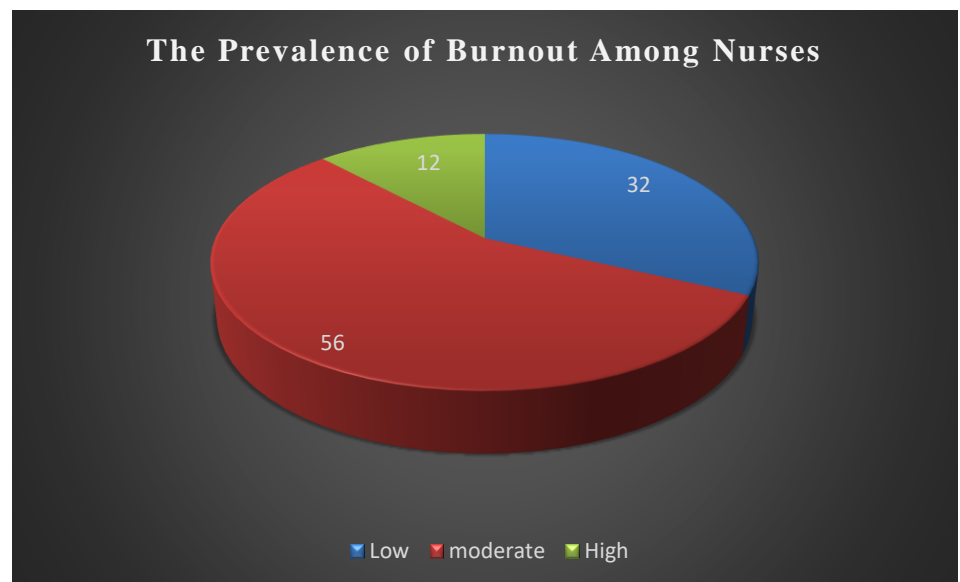


Figure 1. The Prevalence of Burnout Among Nurses.

Table 2. Relationship between Nurses' burnout and their gender.

Demographic data	Rating	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Z	P-Value
Gender	Male	5	15.80	79.00	36.000	.953	.341
	Female	20	12.30	246.00			NS

Table 3. Relationship between Nurses' staff burnout and their demographic data (Age, Education levels, workplace, income, marital status).

Demographic data	Rating	N	Mean Rank	Kruskal-Wallis H	D.F	P-Value
Age	21-30	20	13.93	1.755	4	.416 NS
	31-40	4	8.63			
	41-50	1	12.00			
	More than 51 years	0	.000			
Education Levels	Secondary School	0	.000	7.237	4	.027 S
	Diploma	5	11.60			
	Bachelor	17	15.18			
	Master and above	3	3.00			
Workplace	Primary health center	0	.000	3.265	2	.071 NS
	General hospitals	23	13.78			
	Others	2	4.00			

Income	Enough	2	18.00			
	Not enough	15	13.20	1.330	4	.514 NS
	Somewhat enough	8	11.38			
Marital Status	Single	11	16.32			
	Married	14	10.39	4.010	2	.045 S
	Others	0	.000			

4. Discussion

The analysis of the data following processing and tabulation is the focus of this study; the presentation is methodically designed to evaluate the prevalence and predictors of burnout among nurses' staff employed at Al-Diwaniyah Teaching Hospital. The study displays demographic information about research participants before presenting the findings in accordance with the study's goals. Table 1 indicates that 80% of study participants were in the 20–29 age range. The results of this study, which found that 80% of the study samples were female, are in conflict with those of a study by Alharthi et al. (2023) [14] that found that 49.3% of the study samples were female. In terms of educational attainment, the largest proportion of the study sample (68%) had a bachelor's degree. Ninety-two percent of the sample worked in a general hospital. In terms of marital status, 56% of the sample was married. About 60% of the sample's income was insufficient. This study is consistent with studies [15,16] that showed similar results with demographic data (age and income).

The purpose of this study was to assess Burnout, prevalence, its association, and impacts among the nursing staff who are working at Al-Diwaniyah Teaching Hospital. The results of the study indicated the presence of moderate levels of burnout among the nursing staff at Al-Diwaniyah Hospital. This is consistent with the results of previous studies, which indicated that: An analysis of abstracts revealed a subgroup of studies that targeted physicians in the United States and Canada. Manual searches of bibliographies turned up other relevant studies. The studies in this review had response rates of more than 60%, were conducted between 1984 and 2001, and measured physician burnout using the MBI-HSS. According to the research, which comes from small and mostly localized samples, 46% to 80% of practicing physicians report feeling moderate to severe emotional exhaustion, suggesting that burnout components may be common [17]. This study showed that the Overall assessment of burnout was moderate level among the nursing staff. Compared to a previous study that showed high levels of burnout among the nursing staff working in hospitals during the COVID-19 pandemic, this explains the high level of burnout among hospital workers during pandemics and disasters.

The lack of personal protection equipment and the tremendous workload and psychological stress experienced during COVID-19 are the main causes of the high level of burnout among healthcare workers. Burnout among health staff is primarily due to the excessive workload and psychological stress they face during COVID-19 [18].

Although burnout syndrome has been found to be highly prevalent in surgical/urgent (SU) residencies, it impacts all medical residencies in a variety of ways and is not specific to any one specialty. Furthermore, it is an issue with the health care system that primarily harms individuals' health and probably has a cost impact. This systematic review and meta-analysis help prioritize certain areas (such as specializations) in the fight against burnout and its consequences by examining the frequency of occurrence across

different specialties. Although this condition does not directly affect clinical specialties, public health efforts should concentrate on regions where the problem is evident [19].

5. Conclusion

According to this study, the participants in the study were moderate level for burnout among the nursing staff (56%) which is mostly related Some factors included in our survey such as Fear of contracting communicable diseases, Increased effort at work and as a result Feeling stressed and tired at the end of the day, Insufficient monthly income for some nursing staff. Some of the factors that have been included, such as increased working hours, exposure to professional pressures that exceed their ability to bear, being in constant confrontation with patients' problems, or the lack of updated guidelines, and high rates of infection among health care providers, have also contributed.

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